

What is claimed is:

1. A system for testing a DUT having a plurality of probe pads, comprising:
  - a. a forcing probe for contacting and applying a first electrical signal to a first one of the plurality of probe pads;
  - b. a sensing probe for contacting said first one of the plurality of probe pads and sensing a second electrical signal at said first one of said plurality of probe pads; and
  - c. a variable power supply in electrical communication with said forcing probe and said sensing probe, said variable power supply capable of adjusting said first electrical signal based upon said second electrical signal.
2. A system according to claim 1, further comprising a plurality of forcing probes and a plurality of variable power supplies, each of said forcing probes being in electrical communication with a corresponding one of said plurality of power supplies.
3. A system according to claim 1, a voltmeter electrically connected between said sensing probe and said variable power supply, said voltmeter for measuring said second electrical signal.
4. A system according to claim 1, further comprising a probe card, said probe card supporting said forcing probe and said sensing probe.
5. A system according to claim 1, further comprising first and second sensing electrodes and a sensing instrument, said first sensing electrode in electrical communication with said variable power supply, said second sensing electrode in electrical communication with said sensing instrument.

- 1 6. A system according to claim 5, wherein said sensing instrument is a current meter.
- 1 7. A system according to claim 1, further comprising a plurality of forcing probes, a  
2 plurality of variable power supplies and a switching matrix, said plurality of forcing  
3 probes being selectively connectable to said plurality of variable power supplies via  
4 said switching matrix.
- 1 8. A system according to claim 1, further comprising a feedback controller electrically  
2 connected between said sensing probe and said variable power supply.
- 1 9. A method of testing a DUT having a plurality of probe pads, comprising the steps of:  
2 a. providing a first electrical signal to one of the plurality of probe pads;  
3 b. sensing a second electrical signal at said one of the plurality of probe pads;  
4 and  
5 c. adjusting said first electrical signal based upon said second electrical signal.
- 1 10. A method according to claim 9, further comprising the step of measuring a third  
2 electrical signal at a second one of the plurality of probe pads.
- 1 11. A method according to claim 9, wherein  
2 a. a plurality of first electrical signals are provided to a number of the plurality  
3 of probe pads;  
4 b. a plurality of second electrical signals are sensed at said number of the  
5 plurality of the probe pads; and  
6 c. each of the first electrical signals is adjusted based upon said plurality of  
7 second electrical signals.

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12. A method according to claim 11, wherein said plurality of first electrical signals is provided via a plurality of forcing probes and a plurality of power supplies each in electrical communication with a corresponding one of said plurality of forcing probes.

13. A method according to claim 12, further comprising the step of selectively coupling said forcing probes to said power supplies via a switching matrix.

14. A method according to claim 12, wherein each of said power supplies includes a feedback controller for adjusting a corresponding one of said plurality of first electrical signals based upon a corresponding one of said plurality of second electrical signals.

15. A method according to claim 9, wherein said first electrical signal is provided via a forcing probe and a power supply in electrical communication with said forcing probe.

16. A method according to claim 15, wherein said power supply includes a feedback controller for adjusting said first electrical signal based upon said second electrical signal.

17. A method according to claim 9, further comprising the step of providing a feedback signal in proportion to said second electrical signal for adjusting said first electrical signal.